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ABSTRACT

A program director at an Ontario school for the blind discusses the phenomenon of giftedness in blind students. A section on identification addresses factors involved in IQ measurement, language, creative and productive thinking, high capacity for seeing diverse relationships, goal oriented behavior, sensitivity to expectations and feelings of others, social competencies, and motor performance. Five general programing suggestions are offered, including treating the children as much as possible the same as their peers, challenging them through enrichment and appropriate placement, and providing opportunities for developing well-rounded personalities and self-concepts. The following curriculum essentials are noted: (1) need for cognitive development, (2) need for psychomotor development, (3) need for affective development, and (4) placement and program delivery. (CL)

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CONCEPTUALIZING THE GIFTED BLIND CHILD

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Educational programs for developmentally delayed blind children have received significant emphasis over the past few years. Important progress has been made in establishing and facilitating the most appropriate ways to meet the individual needs of visually handicapped children who have other handicapping problems.

There is more to be done for children with developmental delay, and there continues to be a need for better services for this multihandicapped group of children. My interest certainly remains keen in the areas of educational services for multihandicapped blind children.

However, as educators of visually handicapped children, we must examine the needs of all of these students who are entering our educational system. Among the population of blind students we see a somewhat neglected group which could be identified as those students who are potentially gifted and talented. It is to this group of learners that I wish to direct our attention and I will confine my remarks to the Braille using congenitally blind child who is about to enter the school system at five or six years of age.

My search for literature on this subject has only served to reveal that these youngsters have been given very little, if any consideration in studies made regarding the education of the blind. Because of the lack of research material to substantiate my study, I have had to rely on the personal experience I have had during the past twenty five years in designing and implementing programs for young bright blind children and examining similar programs with my colleagues.

We have found over the years at the W. Ross Macdonald School, that in our general school enrollment of blind students, according to intelligence, our students are not distributed on a normal bell shaped curve with most children clustering around the average.

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We find more students than we would expect statistically at the upper or intellectually gifted end, and more students at the lower end. Our middle range has fewer students than one would expect.

Since many blind children are multihandicapped and evidence some brain damage, it seems logical that we would indeed be dealing with a larger number of children who experience learning difficulties. However, we are at a loss to explain why we also see a larger number of intellectually bright students. We have found, as others have found, that students blinded from retinoblastoma generally show above average intelligence. Although the retinoblastoma children often fall into the gifted grouping, they do not hold exclusive rights to high ability. Most of our bright students have different causes for their blindness.

Jefferson once stated that there is nothing more unequal than the equal treatment of unequal people. Blindness makes a child unequal. Giftedness makes a child unequal. When both exceptionalities appear, that child needs special and different educational opportunities that go beyond equal education for all children.

The Ontario Ministry of Education has defined giftedness as: "An unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated." [[Special Education Information Handbook 1981. (Toronto: Ministry of Education and Ministry of Colleges and Universities, Ontario, 1981) p.44]].

There are two main concerns that face educators of young blind children who appear to be bright and talented.

A. How do we identify the Gifted Blind Child?

B. How do we provide for the scope and sequence of the curriculum so that the special needs of both exceptionalities will be satisfied?

<u>Identification:</u>

There are many characteristics set forth by qualified professionals that can be used to identify giftedness in the visual child. Can these same characteristics be used to identify giftedness in the blind child? Before we can answer that question, we should briefly review the uniqueness of development in a child who has never seen.

Lack of vision affects all domains of development - psychomotor, cognitive and affective. Without vision to conceptualize total pictures of themselves and the environment, blind children are limited in ability to acquire the range and variety of experiences that sight automatically puts together for the visual child. No matter what intellectual capacity the blind child may have, learning is begun differently because information comes from stimuli which are processed through the remaining senses without vision to unite the whole scene. Vision makes concepts meaningful and clearly understood at a glance.

The literature may define a blind child as a child - and that is a good starting point. But, as a total person, and if that person is to grow up well adjusted, blindness is just as much a part of that child as red hair, freckles and fair skin. A blind person once told me that it was as normal for her to be blind as it was for me to be sighted. Blindness must be accepted as a characteristic of the child that cannot be dealt with separately but must be included when we are identifying the needs of the whole child.

Gifted blind children are unique in their development. Characteristics of blindness may either mask or distort the characteristics commonly ascribed to giftedness. Let us look at a few of these characteristics that are used to identify giftedness in visual children and then see how blindness may render these same descriptors inappropriate for the child who has never seen.

I.Q. measurement:

I.Q. measurement is a prime instrument in identifying bright students. In the primary years of schooling, this is a totally unreliable method of finding giftedness in blind children. The consequences of never having sight puts the school age blind child's development at a disadvantage and I.Q. testing will not readily indicate intellectual potential. In fact it may give false information that will discourage teachers from challenging the child's true ability.

If we do not believe in fixed intelligence in visual children, we can be assured there is no such thing in blind children. Changes - and usually dramatic changes - occur with stimulation and experiences. Intelligence should only be one of the considerations in identification. Many aspects of the blind child's giftedness cannot be measured by I.Q. tests because thinking powers of the blind child may lag at first. Development must be viewed as the total integration of all of the child's functions - the interaction of thinking, feeling, responding, etc.

If the child can bring high intelligence to this total picture, that child will be able to think more holistically even though vision is absent, and therefore become more of a self-actualizing person. Gestalt's theory applies here - the whole is more than the sum of its parts - one system depends on all other systems. The blind child must be viewed as a total child who needs to develop cognitively but at the same time show growth in all the areas necessary to function as a capable and confident human being.

Intelligence encompasses the ability to generalize, to form concepts, to reason abstractly and to solve problems. Some of this capacity may be inherent, but much of it is acquired. Again the blind child is disadvantaged in these capacities because of early fragmented concept development. With intervention and programming the child will be able to show substantial gains in these various areas. This takes time and effort but results will be evident and generalization abilities will improve. For example it takes time for the blind child to experience and to understand that a Great Dane has certain canine characteristics that can also be applied to a Poodle. This kind of generalization is difficult for blind children and takes more time and experience to acquire.

The caution is to avoid using standardized tests for the purpose of early identification of the gifted blind child. The child should have at least two to three years of solid and specific programming before intelligence tests that will become part of educational records are administered. Formal intelligence testing eventually can become part of the total identification process for a child suspected of being gifted. The results can yield valuable information if interpreted by a professional experienced in assessing all types of blind children. This sort of evaluation can serve to establish a baseline and can give indicators of potential and thus help to establish the need for a planned programme of guidance and enrichment of all experiences: academic, social, athletic, aesthetic and life coping skills.

Language:

Can we use language as an indicator of giftedness? A high level of verbal ability can determine good intelligence. However, once again, lack of sight can interfere with comprehension. Therefore verbal ability should not be taken at face value but it should be verified with an examination of the child's thought processing, comprehensive synthesis, information gathering, integration of information, generalizing, and use of original ideas.

Many blind children at four or five years of age may have poor language development - but may acquire language facility later as they integrate concepts and understand information. When they begin to use language meaningfully and fluently, they can blossom and often show exceptional abilities. Language may be an indicator of giftedness in blind children but it should not be taken as the only sign nor should giftedness be discounted if high verbal ability is not present at four or five years of age. Language should be examined to be sure it is being used meaningfully and in functional context.

Creative and productive thinking:

This characteristic is used to identify giftedness and blind children may certainly show these abilities. We are quite sure though, that children cannot create well in a vacuum. Blind children may start school with a sparsity of experiences and incomplete generic ideas. They may not have a good background from which to develop imaginative thinking. We must also make sure that these children spend most of their time in reality since it is easy for them to build fantasies when sight does not interfere with day dreams. Reality based participation can nurture creativity. Early identification of giftedness should not be dependent on the ability of the blind child to think creatively at first. It may be difficult for some able blind children to develop creative play in their early years, using concrete materials like dolls, dress up clothes, play house and furniture. Early help to play constructively will assist later creative play techniques.

High capacity for seeing diverse relationships:

The very nature of this ability is hampered by the limitations blindness imposes in constructing holistic concepts in an integrated way. Interpretations can be very pure to blind children who have difficulty realizing the shades and diversities of meanings that accompany any one item, activity or spacial relationship. When sight is lost, using the four remaining senses to discover the world constricts the blind child's capacity to understand a variety of diverse relationships on both the concrete and abstract levels.

Goal oriented behavior:

This trait of the gifted will eventually evidence itself in bright blind children. However, the possibility of choices may not be as easily understood. These youngsters tend to choose from what is known to them and not reach out to discover the world beyond arm's length. This less efficient method of contacting the world can lower the child's motivation towards self initiated goals and towards

exploration and manipulation of the environment. It can also result in a passive attitude to learning where the child both physically and intellectually waits for the teacher to bring the world to him and also interpret it to him. This passivity invades the mental process and decays the child's natural tendencies to explore and "play" with thought.

Sensitivity to expectations and feelings of others:

Body language, gestures, etc. in others gives us excellent information regarding the effect our behavior is having on people around us. This information is acquired mainly by vision. Blind people do not have this advantage and often must wait until they receive impressions from verbal interchange or from the created atmosphere to learn how their friends and associates are responding to them. They do not have sight to verify their interpretations and they cannot immediately perceive the results of their actions, so purposeful behavior may lag.

Social competencies - self awareness:

Gifted visual children are known to have a high level of self awareness. This self concept may include feelings of being different. Blind children may not perceive themselves as different in their early years and they will learn self concept differently because they cannot make visual comparisons with peers. Their idea of themselves will reflect the input and attitudes of significant others in their lives. They may take longer to learn acceptance of self and gain confidence to project a positive self image. A blind child who presents as a behavior problem may have the behavior accepted or excused because of blindness. Blind children need to know appropriate behavior and what is expected in various situations. Inappropriate behavior can shadow the talents that may be inherent in the child.

A gifted child may place high expectations on self performance. If these expectations are not met, frustration levels may rise. Many blind children have difficulty accepting the idea of making mistakes as an important part of learning.

When the blind child begins to know the world around him well enough, he can begin to exert a purposeful influence on what is happening around him. Bright children will show good interest and curiosity about how things are happening and the ways in which they can make them happen. Enhanced self awareness and social skills will assist the bright child to reach out for more information.

Bright blind students are in the same uncomfortable position that bright young people of other minorities are in - blacks, natives, divergent cultural or socio-economic groups. Should they blend or integrate into the general population or should they assume a position of leadership within their own minority? Whichever road they choose to take they will be very noticeable and will therefore experience more stress than many of their peers. We have a responsibility to help them develop strong, well adjusted personalities both to help them manage the stress and also to help them project the most positive image of themselves to others.

Motor performance:

In identifying giftedness and talents, we should be careful to include an assessment of motor performance. In this area too, blind children could show a discrepancy between physical and intellectual development. For example, children whose blindness was caused by retrolental fibroplasia and who began life with a low birth weight could physically present as a three or four year old when they are six. One may see an advanced six yer old cognitively who functions motorically well below the six year old level. The reverse development could also appear.

Educators are aware that many blind children, because of other physical problems or lack of visual goals to move towards or long confinements in play pens, may not have developed free and natural movement. Movement is absolutely essential in order to contact the environment and to explore and experience objects and space. Movement is synonymous with learning. therefore if movement and spatial awareness have been impeded, learning may be delayed - but intellectual capacity to learn may still be excellent.

I have tried to describe the problems we have in identifying giftedness in blind children if we use the traditional measures and characteristics applied to gifted visual learners.

If we accept that blindness causes intricate complications in all domains of the child's development, then we will understand how this uniqueness can be misinterpreted and even mask the talents and gifts that may be waiting to be developed in the blind child.

From our experience, comparing the functioning of a sighted child with that of a blind child of similar age is a useless and unfair estimate of operational abilities and potentials.

If we cannot use I.Q. scores and other inventories for identification of the gifted blind child, what then can be used?

I personally believe the best tool for identifying the Primary School and even the Pre-School gifted blind child is OBSERVATION by experienced and knowledgeable observers who have seen many blind children. Parents should be the first source of information. Teachers should be trained to understand how blindness affects early development. They should be trained to provide a good introduction to basic academic subjects. They should watch and keep anecdotal records as the child moves along and interacts with all phases of the program and all types of stimulation. Combined observations should be made of the whole child relating to and responding affectively, cognitively and motorically to experiences and environment. These observations will reveal emerging talents that can be nourished as part of the total developmental process. Watching the results of intervention and specific skill introduction will give good clues regarding the child's emerging abilities.

Once we suspect exceptional abilities and begin to see them flourish - and become solid, we will then be able to administer some of the tests to verify our predictions.

Programming Advice to Uncover Giftedness and Help it Grow:

At the outset, I would like to take the liberty of offering some advice to teachers who may be meeting their gifted blind youngster in kindergarten or grades one, two or three.

1. Because these children appear competent and verbal they may be treated as very "special". In young blind children, we should avoid making much of their "specialness". Socially, they should be treated as much as possible the same as their peers. Give them similar privileges and similar responsibilities. The influence of adults who talk up the child's brilliance ahead of other personal characteristics should be avoided. Blind children should feel special because of themselves as people not because of isolated qualities like blindness or their superior intelligence. Praise should be given only for accomplishments not attributes!

2. Because they appear very competent and verbal and because they seem to learn easily, we may accept that they are doing as well as they can, and fail to stretch and challenge them through enrichment and appropriate placement.

3. Because they show particular talent in various areas, all emphasis may be put on extending that talent to the exclusion of other experiences that are vital to give the child a well rounded personality and self concept. In other words, too much practice to "become better" at what they do well may cause them to miss their childhood and weaken other areas of potentially high function. This treatment will no doubt produce a perhaps bright but narrow minded and poorly adjusted adult.

4. Don't move too quickly to load the child with "extras". Design an individualized, structured, sequential program and build in a strong foundation of core subject areas - reading - writing - mathematics - concepts - orientation and mobility and living skills. Teach heavily in these areas in the Primary years. Provide opportunities for creative expression in the Integrated Studies segment of the Curriculum.

5. Consider placement either in Residential or Integrated settings in academic grades for the first three years. In the case of integrated settings, withdraw only for times of specific skill instruction i.e. Braille - abacus, etc. By grade four (keep flexible depending on the child) we should begin to look at Programs for the Gifted and identify the exceptionalities as Blind and Gifted for purposes of programming. Branching out to computers and other technical devices will become appropriate.

<u>Needs of the program - essentials of the curriculum:</u>

Gifted and talented blind students need a different philosophical approach to their education, yet they need the same solid educational base set for any child who has never seen. It is from this dichotomy that I wish to mention certain basic needs that I feel should be part of every blind child's early education. These needs are critical to the development of the whole child.

The bright blind child, because that child may appear exceptional in verbal or musical abilities, could cause the teacher to feel that concept development, social relationships, etc., are lesser needs.

Educators are becoming concerned with basic principles of neuropsychology. They are becoming interested in how information is processed. What happens between input and output of information? The study of behavior and the knowledge that all systems must be in harmony would encourage us to teach to both hemispheres of the brain.

For blind children, this is a vital consideration. The needs I am about to list may seem self evident. Yet I feel they are being missed in some programs where the blind child's cognitive level may seem to the teacher to be too high to dwell on these basic necessities.

A. Need For Cognitive Development:

1. Concepts of self and environment

Experienced based curricula will foster the cognitive development of blind learners. Piaget's theory and stages of development can apply directly to blind children. Intelligence, according to Piaget, emerges as it is nurtured and grows as the child has things to act upon and with which he can interact.

For the blind child, continually reinforce the idea of ME as a whole person - what I look like - What sex I am - how tall I am - what is unique and wonderful about ME? How does my blindness work for me as part of my total being? Continue to find out how to relate to the environment - special relationships - others and items around us and their functions - times - hours - days - weeks - months - years - seasons - specific times of routines and activities - special days - concepts of atmosphere - weather temperature - ideas of comparison - size - texture - function - position - shape - form - generalization - categorization - order and ideas of reproduction.

Experience, experience, experience with the whole body using and integrating all remaining senses to put holistic scenes in place. The teacher is the coordinator putting varieties of information in balance with each other - explaining - exploring - reinforcing and building confidence. Always be aware that the problem with being blind is the fragmented exploration that is necessary in examination. Language worked meaningfully around experiences can greatly ameliorate this problem. Encourage the child to explain in terms of his own sensory information.

2. Academic competencies

Reading and writing by means of Braille is another road to freedom. Braille I believe, should be the priority medium at first and never be replaced by more modern reading machines like Kurzweil and Optacon - although these should be used as supplements later on. Introduce the slate - and work for high proficiency; this is the blind student's pen and pencil.

Far too many bright blind children are imcompetent readers and writers because they are allowed to move to other devices before they have mastered the Code. Some children may even need remedial lessons in Braille. The key to early fluency in Braille is a great deal of exposure to the Code - just read, read, read and enjoy. Do not spend a disproportionate amount of time in questioning for comprehension. The focus should be on being able to recognize the Code, and read it fluently. Comprehension will come later. If the child is unable to decipher the Code - he will not like to read and his desire and motivation for reading will be stifled. We, in our school, have substantial proof that children taught to read the Code by a great deal of exposure in the first years, with heavy emphasis on phonics, progress more quickly in reading skills than children who have had more emphasis on comprehension than on cracking the Code.

What I wish to emphasize is that the basics for bright blind children must not be overlooked - reading, writing, mathematics, listening, speaking, concept development, orientation and mobility and living skills should be structured and sequentially programmed. Integrated Studies in art, music, drama, physical education, social sciences, current events, etc., are the areas in the school day for more creative expression.

B. Need for Psychomotor Development:

Movement and preceptual-motor activities are requisites for learning. Gross Motor movement of every description is important to the blind child in the Formative Years. Build movement education into as many areas of the child's curriculum as possible.

Teachers should know basic mobility and pre-cane techniques. Effort should be made to encourage free and natural movement. Only after these skills and this freedom has been established should the cane or other devices be offered.

Independence in all areas of the child's life is the greatest gift we can offer the blind child.

Fine Motor tasks, the constructive use of both hands, the facility of mid-line hand positioning and directionality are all much needed skills to accomplish.

In early education, moving competently is more important than reading or playing the piano. Mannerisms will be reduced if movement programs are stimulating and introduced in infancy.

A physiotherapist who knows about blindness is a helpful member of the education team. Only through moving, can blind children know the world outside themselves.

Need For Affective Development

Of the areas of development, perhaps this is one of the most important. Blind children have a special need to fulfill Maslow's hierarchy and prepotency of needs - Physiological, Safety, Love and Belonging, Esteem, Self Actualization and the Need to Know and Understand. A positive self image is so essential. The child with good ability must know that he can accomplish because of his ability - not in spite of his blindness. Earned and honest praise, equal responsibilities, healthy competition with sighted peers and if possible with other blind children is helpful.

Gifted children can have unusually high expectations of themselves. This pressure can be more demanding than external pressure. They may need help in acquiring realistic goals and more adequate coping behaviors. Gifted blind children can become accustomed to hearing that they are "best". They may begin to consider everything they do to be exemplary. They must be allowed to make mistakes and to know that others make mistakes too and that this is part of learning.

Some blind children on the other hand, may have difficulty verbalizing what they feel they can do well and will need help to recognize their abilities.

The blind child's awareness and understanding of who he is as a whole person will have a great influence on his developing quality of life.

Above all, gifted blind children need to have their childhood. They must experience love and enjoy life to the fullest. If practising music and studying electronics is taking up most of their free time, they will not develop socially or emotionally. We all know the eccentric genius who can make a great contribution to the class, but I have also known that genius to experience extreme depression and loneliness. By looking at our adult gifted blind people, the most productive and satisfied individuals are those who have had a loving, secure, fun filled and happy childhood with a great variety of experiences.

Placement and Program Delivery

Is it acceleration or enrichment that will best suit the needs of gifted blind children? In the first years, I strongly

advocate specific skill development designed, monitored and directed by a Specialist Teacher of the Blind. As mentioned before, areas like drama, music, crafts, etc. can be vehicles for creative expression. The individual must be treated according to progress and program but generally speaking, enrichment is by far the best option. The decision for placement will be dependent on what is available in the community. Eventually, the child, (perhaps at about grade four) should be put into an enrichment class with other bright children who are in the hands of a trained Teacher of the Gifted and that teacher should then work cooperatively with the Specialist Teacher of the Blind. These teachers together with parents can encourage creative productivity and make giftedness "happen" in the student who shows this kind of potential. Enrichment may focus heavily on the child's strength area - but while this is appropriate, development of the whole child is of paramount importance. Reaching out to all community resources is essential.

Our students must have the opportunities to develop competencies in order to free creative and productive powers. Thoreau once said, "Birds never sing in caves". They also cannot fly without wings. Providing young blind children with the kind of early intervention and skills they need will give them the wings to be creative and will release them from mimicking visual ideas of others and give them the confidence to be themselves.

CONCLUSION

Blind children need love and acceptance in their early years. They need the kind of love that is a process of giving them belief in themselves. They need informed and loving teachers who can help them understand themselves and their environment so that their special talents may be uncovered and enhanced. Assessing their potential strengths by traditional measurements is unfair in the early years because of the different ways they process information.

Gifted blind people should be leaders and contributors in society. Educators have to assume their part in the responsibility of helping them become everything they can be - not only for themselves but for all of us.

REFERENCES & BIBLIOGRAPHY

Anderson, K. (Ed). Research on the Academically Talented Student. Washington, D.C.: National Education Association, 1960.

Ausubel, D.P.: Cognitive Structure: Learning to Read. Education. 1967, 87, 544-548.

Barron, F.: Creative Person and Creative Process. New York: Holt, Rinehart and Winston, 1969.

Binet, A., & Simon, T.: The Development of Intelligence in Children (the Binet-Simon Scale) (E. Kite, trans). New York: Arno Press, 1973. (Originally published, 1916).

Brant County Board of Education: Program Proposal for Education for Gifted and Talented Students, 1981.

Briggs, D.: Your Child's Self-esteem: The Key To His Life. Garden City, N.Y. Doubleday, 1970.

Bruner, J: The course of cognitive Growth. American Psychologist. 1964, 19, 1 - 15.

Callaway, W.R.: A Holistic Conception of Creativity and its Relationship to Intelligence. The Gifted Child Quarterly, 1969, 13, 237 - 241.

Clark, Barbara,: Growing up Gifted. Columbus: Merrill, 1979.

Cratty, Bryant J.: Movement and Spacial Awareness in Blind Children and Youth. Charles C. Thomas, 1971.

Elkind, David,: The Hurried Child - A Growing up too Fast too Soon. Addison-Wesley, 1981.

Farrell, P.: Teacher involvement in Identification. Paper presented at the First National Conference on the Disadvantaged Gifted, Ventura, C., March 1973.

Feldenkrais, M.: Awareness through Movement. New York: Harper and Row, 1972.

Fraiberg, S.: Parallel and divergent patterns in blind and sighted infants. The Psychoanalytic Study of the Child, 1968, 23, 264 - 300.

Fraiberg, S.: Insight From the Blind. New York: Basic Books, 1977.

Gallagher, J., & Kinney, L., (Eds.): Talent Delayed-Talent Denied, the Culturally Different Gifted Child. A Conference report. Reston, Va.: The Foundation for Exceptional Children, 1974.

Holt, John,: How Children Learn. New York, N.Y. Dell Publishing Co. Inc., 1967.

Hopkins, K.D., & McGuire, L.: Mental measurements of the Blind. The validity of the Wechsler Intelligence Scale for Children. The International Journal for the Education of the Blind, 1966, 15, 65 - 73.

Kaufmann, F.: Your gifted child and you. Reston, Va.: The Council for Exceptional Children, 1976.

Kohlberg, L.: First Things: Social development - grades 2 to 5. New York: Guidance Associates, 1974.

Krech, D,: Don't use the kitchen sink approach to enrichment. Today's Education. 1970. 59, 30 - 32.

Maker, J.: Providing programs for the gifted handicapped. Reston, Va. The Council for Exceptional Children, 1977.

Mallinson, T.: Gifted Underachievers. Toronto: Ontario Board of Education, Research Department, 1972.

Ornstein, R.: Right and left thinking. Psychology Today, 1973a, 6, 87 - 92.

Piaget, J. & Inhelder, B.: The Psychology of the Child. New York: Basic Books, Inc., 1969.

Pledgie, T.K.: Giftedness among handicapped children: Identification and programming development. Journal of Special Education, 1982, 16 (2), 221 - 227.

Rogers, C.: On Becoming a Person. Boston: Houghton Mifflin, 1961.

Samples, B.: Learning with the whole brain. Human Behavior, 1975, 4, 18 - 23.

Special Education Information Handbook 1981. (Toronto: Ministry of Education and Ministry of Colleges and Universities, Ontario, 1981.

Strang, R.: Helping your Gifted Child. New York: E.P. Dutton, 1960.

Swallow, Rose-Marie: Piaget's Theory and the visually handicapped learner. The New Outlook, September 1976, 273 - 280.

Thinking Caps: Materials for gifted: Cognitive, affective, psychomotor skills and activities, Box 7239, Phoenix, Az. 85011.

Tillman, M.H.: The performance of blind and sighted children on the WISC: Study 1. The International Journal for the Education of the Blind. 1967a, 16, 65 - 74.

Tillman, M.H.: The performance of blind and sighted children on the WISC: Study 11. The International Journal for the education of the Blind. 1967b, 16, 106 - 112.

Web, D.: Teacher sensitivity: Affective impact on students. The Journal of Teacher Education, 1971, 22, 455 - 459

Williams, M.: Superior intelligence of children blinded from retinoblastoma. Archives of Diseases of Childhood, 1968, 43 (228) 105 - 115.

Warren, D.H.: Blindness and Early Development. New York: American Foundation for the Blind, 1977.

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